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ABSTRACT

Designed (1) to create an interest in the study of language, (2) to help students understand something about the characteristics of language, and (3) to show students that language is a system, Unit I of the Oregon Elementary English Project offers the following six lessons: "Are Animals Like Humans? compares human and animal communication; "How Do I Recognize an Earthman?" demonstrates that all humans have a language which meets their needs; "What is a System?" examines the characteristics which some well-known systems have in common; "Is Language a System?" demonstrates how words go together in a system which makes it possible to predict some of the ways they will be used, and shows that students learn and use this system without realizing or thinking about it; "Why Do you Say It that Way?" demonstrates that the system of any language seems logical and natural to its speakers; and "Is Learning Forgetting?" explains how students learn the language and how they use it automatically without giving conscious thought to what they are doing. Each lesson is accompanied by suggested materials and procedures as well as possible extensions. (See CS 200 482-490 and CS 200 492-499 for related documents.) (HS)

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Teacher Introduction

Language V - VI

Oregon Elementary
English Project
Univ. of Oregon
Eugene, Oregon
1971

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# Unit I

## WHAT IS LANGUAGE?

Note: This introduction replaces the background material formerly found in each individual lesson. Read it and keep it in mind to refer to if needed as you teach the lessons.

We are suggesting the following changes in the unit:

1. All teacher material has been revised but the student material remains essentially the same. We suggest you substitute the new material for the teacher material used last year. We have built into the revised teacher versions suggestions for changes in using the student material which were made by teachers using material last year.

2. The changes involve combining lessons 1 and 2, 4 and 5, and 6 and 7; and teaching lesson 9 before lesson 8. In each lesson we indicate the former numbering of the lessons as well as the new numbering.

### PURPOSES:

1. To create an interest in the study of language by making students aware of language as something that makes us different from animals.

2. To help students understand something about the characteristics of language.

3. To show students that language is a system which they already have and use without thinking about it.

### WHAT YOU NEED TO KNOW TO TEACH THIS UNIT:

Language is a system consisting of parts (sounds, words, and meanings attached to the words) and a set of rules for combining these parts into sentences. When humans learn a language they learn the parts and the rules for putting them together. This is an unconscious process, and when we use language we are usually unaware that we are following a set of rules. When children come to school they have already acquired the system and the rules for using it. Their vocabularies may be limited, but they already can produce all the basic sentence structures of the language. So in fact when you teach about language you are simply making children aware of something they know unconsciously.

There is general agreement of the importance of language to human beings and on the fact that our ability to use language is one of the fundamental ways in which we differ from other creatures. All living creatures have some system of communication with others of their own species,

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ranging all the way from simple movements of the single-celled creatures to the complex system of humans. The human system enables its users to do things no other creatures can do.

In order to think about what human language is, it is useful to identify some of its characteristics and to compare them with animal systems of communication. Following is a brief discussion of some of these characteristics.

1. Human language has interchangeability. That is, humans and most animals can both give messages and receive messages using the system of their own species. Apes communicate with a system of cries. Each ape can produce the cries and can also understand them when another ape produces them. Humans can understand and produce messages using the human language system, but we can't communicate with apes using their system, nor they with us. There can be communication between species, but it is of a different sort. You don't bark at your dog and he doesn't speak a human language, though you can often understand what he wants and he can understand certain things you say.

2. Each creature learns the communication system of its own species and does so almost automatically without realizing it is doing so. Humans seem to need to hear a human language before they begin to use one, and they learn the language they hear when they are emerging from infancy into childhood. But no one actually has to teach the language to humans as long as they hear a human language. In fact, it is impossible to stop a normal human infant from acquiring a language.

3. All systems use arbitrary symbols. Human language uses vocal-auditory symbols. That is, it is produced by vocal cords, etc., and received through hearing. Various animal systems use other kinds of signals. Some depend on sight and smell. Some use the sense of touch. But all communication systems use signals of some kind that are meaningful to the members of the species who know the system, and the signals have no essential connection to the thing they stand for.

4. Human language is used for many things which are not biologically essential. Most animal systems are used only for maintaining life: to secure food, to warn of danger, to frighten enemies, to attract mates or their young.

5. The individual sounds of human language are combined according to rules in different combinations to express different messages. In the human system it is possible to combine the sounds and the combinations of sounds in such a way as to produce an unlimited number of messages. This is a major characteristic of human language. Most animal systems consist of a limited set of discrete signals, each one complete in itself. Therefore, the number of messages is limited.

6. One of the most important characteristics of human language and the one which particularly distinguishes it from animal communication is called displacement. It means that human beings can communicate about

things that happened a long time ago or a long ways away, or about things that will happen in the future or that may never happen. Human language does not need any immediate stimulus. Most animal communication, as far as we know, is in response to an immediate situation.

All human languages are adequate to meet the needs of the people using them. Although anthropologists once spoke of "primitive languages" which were believed to be so impoverished that speakers of these languages could communicate only certain kinds of messages, we now know that there is no such thing as a primitive language. All languages are capable of meeting the needs of the speakers of the language. All languages have a way of creating new words. All languages borrow words from other languages. Even the languages of so-called primitive people are fully developed and have the complexity and irregularity found in the languages of modern civilized people, although they may have much smaller vocabularies. As a society becomes more complex, the language grows in vocabulary and adapts itself to the needs of those using it.

## WHAT IF YOUR STUDENTS STUDIED IN THIS UNIT LAST YEAR?

If you happen to have students who used this unit last year, you will want to use it only to review the concepts and will spend less time on it than with students who are using it for the first time.

These are the concepts you will want to be sure your students understand:

1. A system is something that consists of related parts that operate together according to rules in an orderly and predictable way.

2. Language is a system because the parts operate together in an orderly and predictable way according to rules.

3. Speakers of a language know unconsciously what the rules are and can use the system without thinking about it.

4. Human language sets us off from other living creatures.

Here are some suggestions for reviewing these concepts:

A. Divide your class into groups and have them select some system (such as transportation, solar, school, etc.) and report on how it works. They should include a description of its parts and how they work together and a statement of some of the rules that are followed in the system.

   After each group has reported tabulate what the various systems have in common.

B. Have students think of the various systems that function in humans and describe them (nervous system, circulatory system, digestive system, language system.) This could be done in groups.

Work out with them what each system has in common and in general what its parts are and how they work. Discuss the difference between man-made and natural rules.

C. Give students the following groups of words and ask: Are they in the order in which they would say them? How would they change them? How did they know how to change them?

1. the tug log boom by was moved
2. in fish very deep swim summer
3. for three cat our days gone was
4. young the birds ugly and awkward are
5. brighter in stars are summer

D. Have an out-of-class project where students observe animals communicating and report back. Have them decide if each animal has a system; what the parts are; what the animals can do with their system.

Then have them compare what they have observed with man's communication system.

# ARE ANIMALS LIKE HUMANS?

PURPOSE: To interest students in the study of language by comparing human and animal communication.

MATERIAL: Set of poems or stories in which animals speak like humans, either those included in teacher material for lesson 1 which you already have, or some of your own choice. You can prepare them for the overhead or ditto them to hand out to each student.

Student worksheet, "Animals and Humans," like copy that follows. You can ditto copies for each student or have them make their own.

Student worksheet, "What Is the Message?" for each student like the copy that follows. You can ditto copies for each student or have them make their own.

SUGGESTED PROCEDURE:

Note: This lesson may take more than one day; it breaks easily between items 3 and 4 below.

1. Present some of the poems or stories in which animals speak as humans. Either read them to your students or have them read them. Use questions such as the following to guide discussion.

    1. How are all the animals in the poems alike? (Among other things, they all speak like humans.)

    2. Are they like animals you have known or different? If different, in what way? (They appear to be able to talk.)

    3. What are the animals doing that real animals do not do? (Point out that men have often, in literature, given animals human characteristics, especially the ability to talk.)

    4. Can you think of any other examples of animals talking like humans? (Cartoons, television, books, etc.)

    5. Why do you think we like to pretend that animals can talk? (There is no one right answer. Students should be encouraged to draw on their own experience.)

2. Divide the class into groups. Assign each group one of the poems or stories with talking animals. Using the worksheet "Animals and Humans," have each group make a list of the characteristics of the animal in the first column (if there is more than one animal in the story have the group choose only one) and characteristics of humans in the second. One student should be a recorder and report back to the class as a whole. Different animals will result in somewhat different lists. Discuss the differences between animals as well as between humans and animals.

3. When each group has reported, have them go through the lists and cross out all of the ways in which humans and animals are alike. (They eat, sleep, have young, require shelter, etc.) Discuss those that set humans apart from animals. Undoubtedly language will be one of them, and in most cases will be related to the other differences.

4. On the second day, if you decide to take two days, remind students that one of the ways in which animals and humans differ is in how they communicate. Ask:

   How do humans and animals communicate?

   Have students think of as many ways as they can and record their answers in two columns on the board--labeled "Human" and "Animal." (Many of the human means of communication are secondary systems which use human language--telephone, telegraph, sign language, writing, etc. There will also be many items on the list that are alike: they all make use of signals of some kind; all those using the same system know what the signals mean and how they can be used, etc.)

5. Again divide the class into groups and have them use the student worksheet, "What Is the Message?" to list the kinds of messages that humans and animals can communicate. Have the groups share their lists. You should put a time limit on this activity, because only the size of the paper and time will limit what humans can communicate. The list for humans should be by far the longest. In the follow-up discussion try to lead students to see that humans can communicate about things that are far away in time and space, not only about the needs of the moment.

## ANIMALS AND HUMANS

| The Animal | Humans |
|---|---|
| What do they do? | What do they do? |
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |
| 4. | 4. |
| 5. | 5. |
| 6. | 6. |
| What do they need? | What do they need? |
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |
| 4. | 4. |
| 5. | 5. |
| 6. | 6. |
| What do they feel? | What do they feel? |
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |
| 4. | 4. |
| 5. | 5. |
| 6. | 6. |

# WHAT IS THE MESSAGE?

| Animals? | Humans? |
| --- | --- |
| | |

# ARE ANIMALS LIKE HUMANS?

PURPOSE: To create through discussion an interest in what language is and in how it distinguishes humans from other animals. More generally, the lesson should serve to motivate the lessons that follow in which some of the specific characteristics of human language are considered.

CONTENT: This introductory lesson has no student version. It includes some nursery rhymes and fables in which animals are given the ability to speak as humans. These, or others of your own choosing, can be used as the basis for a class discussion. Suggestions are made below for how you might use the rhymes and how you can procede in order to lead students to discuss the similarities and the differences between themselves and animals and to consider whether or not animals really talk and communicate.

BACKGROUND: Language is what makes us human. Some zoologists define man, or the species homo sapiens, as being "distinguished by the ability to communicate by means of organized speech and to record information in a variety of symbolic systems." All of man's differences from other animals are related to these unique abilities. Whether or not the difference is one of degree or a more basic biological difference has not been established. Yet man recognizes his likeness to animals and often in literature endows them with the ability to talk to him and to each other.

SUGGESTED PROCEDURES:

1. Begin your discussion by presenting one or more of the poems or fables in which animals are given the ability to speak as humans. Use the ones provided here or others that you or your students prefer. You may wish to duplicate them for your students or to show them on the opaque projector.

If you have available a recording of the popular song "If I Could Talk to Animals," from the movie version of Dr. Doolittle you might use it to introduce the lesson.

2. The first part of your discussion should focus on the fact that all the animals in the poems seem to be able to talk like human beings. Try to induce this information by questions such as "How are all the animals in the poems alike?" "Are they like any animals you have known, or are they different?" "In what way?" Point out that men have always had a desire to communicate with animals and that in literature and folk stories we often give animals human characteristics, especially the ability to talk. Ask students why they think we do so. There is no one right answer, of course, and students should be encouraged to draw on their own experience with stories and with their own pets. Our desire to endow animals with human characteristics undoubtedly grows out of our interest in animals and some feeling of kinship with them. It is interesting how often we tend

to endow them with the one characteristic that distinguishes us from them--the ability of use human language. This discussion should allow you to ask in what ways man and animals are alike.

3. You might list or record the ways students identify in which man and animals are alike. Answers will certainly include the biological similarities: we eat, sleep, need shelter, have young, experience the emotions of fear, love, anger; move about, grow old, die, communicate with each other. You might try to get students to see that man, as well as every other kind of animal, has the unique characteristics of its own species. Cats are different from dogs; dogs from monkeys, etc.

4. Next lead into a discussion of how man is different from animals, even the animals he is most closely associated with. This should also be an open ended discussion with no one right answer. Its purpose is only to explore ideas. Even learned men do not all agree on the nature of the differences between man and other living creatures, but certainly one is the ability to use human language. As a lead in for Lesson 2, which will focus specifically on the communication of animals as it compares with that of humans, turn the discussion to language and communication. Using the poems and stories again, you might ask such questions as "Do animals really talk?" "Like humans?" "Do they communicate?" "If so, how?"

If interest is high and time is available, you may decide to continue directly into Lesson 2.

5. Instead of recording ways in which man and animals are alike and different, you might want students to make their own lists before the class discussion, or you might divide the class into groups and have each group come up with a list and then compare the items. You might even ask them to write a story comparing themselves to one of their pets.

<u>Possible poems you might use as an introduction to the discussion:</u>

The first poem included here is a translation of a Japanese nursery rhyme which is very similar to the two English rhymes which follow it.

WHITE HERON, WHITE HERON

White heron, white heron,
Why is your neck so long?
It's because I'm hungry
My neck is so long.

Then if you are hungry,
Go plow the rice field.
Oh, I would get muddy,
If I plowed the rice field.

But if you got muddy,
You could brush it all off.
Oh no, it would hurt me,
To brush the mud off.

Pussy cat, pussy cat,
Where have you been?
I've been to London
To look at the Queen

Pussy cat, pussy cat,
What did you there?
I frightened a little mouse
Under her chair.

Baa baa Black Sheep,
Have you any wool?
Yes sir, yes sir,
Three bags full.
One for my master,
One for my dame,
And one for the little boy
Who lives in the lane.

This next poem is from a collection of poems written more than fifty years ago by Mary Fenollosa and illustrated with Japanese prints. She lived in Japan for many years, and many of the poems reflect this influence, even though this one does not.

A SEA-SIDE STROLL

Beside the sea, from out its hole,
An earth-worm started for a stroll.
He met a crab who, scoffing, said,
"Which is your tail, and which your head?"

"You well may ask," the earth-worm cried,
"Your ugly face stuck on your side!
But, first of all, I'd like to know
Which way you're walking, to or fro?"

A devil-fish* rushed up to see
What all this quarrelling could be;
And, standing near, with pompous pose
Cried, "I'll be judge, bring out your woes!"

The others turned with gibe and jeer.
"O wond'rous judge! We fain would hear
If, spite of all your learned charms,
You're walking on your legs or arms?"

And then they fought, and strewed the beach
With heads, arms, legs, and tails of each.
But, worst of all, the questions, -- they
Remain unanswered to this day!

* an octopus

The following poem was written in England over one hundred years ago by Eliza Cook.

THE MOUSE AND THE CAKE

A mouse found a beautiful piece of plum-cake,
The richest and sweetest that mortal could make;
'Twas heavy with citron and fragrant with spice,
And covered with sugar all sparkling as ice.

"My stars!" cried the mouse, while his eye beamed with glee,
"Here's a treasure I've found; what a feast it will be:
But hark! there's a noise, 'tis my brothers at play;
So I'll hide with the cake, lest they wander this way.

"Not a bit shall they have, for I know I can eat
Every morsel myself; and I'll have such a treat!"
So off went the mouse, as he held the cake fast,
While his hungry young brothers went scampering past.

He nibbled, and nibbled, and panted, but still
He kept gulping it down till he made himself ill;
Yet he swallowed it all, and 'tis easy to guess
He was soon so unwell that he groaned with distress.

His family heard him, and as he grew worse,
They sent for the doctor, who made him rehearse
How he'd eaten the cake, to the very last crumb,
Without giving his playmates and relatives some.

"Ah me!" cried the doctor; "advice is too late,
You must die before long, so prepare for your fate;
If you had but divided the cake with your brothers,
'Twould have done you no harm, and been good for the others.

"Had you shared it, the treat had been wholesome enough;
But eaten by one, it was dangerous stuff;
So prepare for the worst;" and the word had scarce fled,
When the doctor turned round, and the patient was dead.

Now all little people the lesson may take,
And some large ones may learn from the mouse and the cake,
Not to be over-selfish with what we may gain;
Or the best of our pleasures may turn into pain.

Other suggestions are "The Flea and the Ox" from Aesop's Fables or "The Fox and the Geese" from Grimm's Fairy Tales.

# HOW DO I RECOGNIZE AN EARTHMAN?

PURPOSE: To demonstrate to students that all humans have a language which meets their needs.

MATERIAL: Story, "How Do I Recognize an Earthman?" filed separately, to be passed out to each student. You already have this material.

SUGGESTED PROCEDURE:

1. Begin by reminding students of what they learned in the previous lesson. Use the following questions as a guide to discussion.

   How do humans communicate?

   How do animals communicate?

   How is human communication like animal communication? How is it different?

   Do all humans have language?

   Do they all have the same language?

2. Read the story aloud, preferably having students take turns. Chawkmeer is pronounced like chalk-mere; Urugu like oo´ roo-goo.

3. The following questions can be used to help students understand the concepts brought out in the story. You may use them at appropriate places as the story is being read, or use them at the end.

   a. What was the creature with the wagging tail? (a dog)

   b. How did Urugu use his language decoder to help him tell Earthmen from other creatures? (If the language decoder could decode their sounds, then he knew they were earthmen.)

   c. Was Urugu right when he thought that all Earthmen had language? (Yes.) And that animals did not? (Yes, as far as we know now, at least not like humans.)

   d. Are the languages of Earth different from one another?

(Yes. You may wish to point out here that languages can be different in structure and in the sounds they use as well as in vocabulary.)

e. Is one language better than another if it has more words to use for the same thing? (No, not necessarily.)

f. Could Urugu still understand what the boys were telling him, even after it had been translated into Chawkmeerian? (Yes; sometimes it just took more words.)

g. What language is spoken where you live? What are some of the different words for machines and modern inventions found in this language? (In preparation for the next question, you might watch for words mentioned by the students which could be grouped under one heading. For example, car, station wagon, truck, camper, pickup, etc., are all vehicles, or transporters.)

h. Are any of the words you mentioned words for the same thing? (Try to help students see that we often have more than one name for the same thing.)

i. Can you say anything you want to say with your language? Can everyone say anything he wants to say with his language? (It is hoped that students will answer "yes," but some may feel that they often have trouble saying what they mean. The point is that although individual performances may be inferior, the language itself makes it possible to say anything we want. Accept answers that students give but encourage discussion. Suggest that the difficulty may be that we haven't all learned all the words that exist in our language.)

j. Can you think of anything so weird that you can't describe it or explain it somehow? Anything so new? (It is hoped students will say "no" to both questions. See the answer to (i) above.)

k. How do you suppose language is able to adapt in this way? (Let students raise any questions they wish to about language. You could use this discussion to help create interest in language. They may just decide that we do it by coining new words, by combining old words, etc. That would be a good answer.)

# HOW DO I RECOGNIZE AN EARTHMAN?

When the Earthmen left the moon after their first landing there, government officials from the Planet Chawkmeer in the Seventeenth Galaxy sent an expedition of space guards to investigate their landing site. Now, Chawkmeerian boys are very much like boys on Earth, so Urugu, the son of one of the space guards, stowed away on the space ship.

When the expedition landed on the moon, the space guards were very busy, and Urugu tried to help his father. Chawkmeerian fathers are very much like fathers on Earth, so Urugu's father said, "Go play and leave me alone. Can't you see I'm busy?", which was exactly what Urugu wanted him to say, as any Earthboy could have guessed.

Urugu promptly got into his toy space ship which he had brought along, and popped on over to Earth. Earth is a very long way from Chawkmeer and Urugu didn't know very much about Earthmen. In school he had hated Space Geography, but he thought now would be a good time to learn about Earth first hand. He didn't know if the people of Earth were savage or civilized, so he decided he had better be cautious and look things over carefully before he let anyone see him.

As he circled Earth he saw many large cities, but decided to look for a small village instead. He noticed a nice green, open patch of fairly flat country in East Africa and went down for a closer look. The country was beautiful and there was a small village of attractive, round huts. He felt fairly safe here where there were not so many Earthmen.

Urugu landed his space ship on a hill on the side away from the village, hid it in some brush, and crept close to the village where he could watch. He saw what he thought must be a boy about his own age, even though he didn't look much like Urugu. He could hear the boy talking to a larger person. These must certainly be Earthmen. He did know enough about Earthmen to know that they had language and could communicate with each other, just as the Chawkmeerians could.

Urugu was feeling quite safe now. The Earthmen seemed civilized and not at all savage. Just as he was about to go out to try to talk to the boy, a very strange thing happened. A small, four-legged creature, with a tail that seemed never to stop wagging back and forth, ran up to the boy and the boy began to pet him and to talk to him. Now on Chawkmeer the only creatures that Chawkmeerians talk to are other Chawkmeerians. There are other creatures, but they make no noise and no one ever thought of talking to them. Urugu even had a pet creature but he never talked to him. If he wanted his pet to do something he used hand signals. Urugu didn't know what to think. This creature looked more like a creature than an Earthman, and the boy was petting it the way a boy would pet a creature. But since the boy talked to it, maybe it was a different kind of Earthman. Urugu wished he had paid more attention the day they had had earth pictures on his Space Geography TV-tape lesson. That must have been the day he was watching

his new Captain Galaxy tape on his portable mini-screen behind his text-screen where the teacher couldn't see it.

Urugu sat watching the boy and the creature, but he couldn't really decide whether the four-legged, tail-wagging creature was an Earthman or not. In any case, they seemed friendly and Urugu decided to take his chances and try to talk to them. He waited until the boy and the creature came close to the bushes where he was hiding. Then he stepped out. The creature took one look and made the awfullest noise Urugu had ever heard, "Woof, woof, wow, wow." Then the creature turned and ran away. That settled it for sure. He must be an Earthman, because he could certainly make noise. The Earth boy was also surprised to see Urugu. He had never seen anything quite like Urugu before but since they were the same size, he stood his ground.

Luckily, Urugu had his language decoder in his space suit belt. All Chawkmeerians speak the same language, but Urugu had learned enough to know that people on other planets speak other languages. Using his decoder he spoke to the boy and was able to explain who he was. Even in the boy's small village, they had heard the news of the moon landing and he believed Urugu. They had a long discussion and the village boy had a hearty laugh when Urugu said, "I must be going now. I want to see what other kinds of Earthmen there are. Here I have seen two kinds, you and the funny little four-legged, tail-wagging Earthman who ran away and hid."

When the boy finally stopped laughing, he tried to explain to Urugu that on Earth, animals and pets could make noises, too. The boy called his pet and sure enough, Urugu's language decoder wouldn't work on the funny noises it made. Then Urugu asked the boy if all Earthmen looked like him, with such beautiful black skins? When the little boy said that Earthmen have skins of many different colors, and eyes and hair of many different colors, Urugu thought that was wonderful. He told the village boy he hoped to find a green Earthman with green skin like his own. Again the little boy had himself a good laugh and explained to Urugu that the skins of Earthmen were different, but not that different, just blacks, browns, and tans. Even though some Earthmen are called white, yellow, and red, the little boy said he didn't think Urugu would really find anyone with skin those colors, not on the Planet Earth anyway.

Urugu left his new friend, and as he flew around Earth in his toy space ship wondering where to land next, he also wondered how he could tell Earthmen from some of the other creatures he saw. Many different kinds of creatures on Earth seemed to be able to make noise. Urugu finally decided that he could tell which of the noisy creatures on earth were Earthmen by seeing which of their sounds could be decoded by his decoder. And it worked. All Earthmen had language, he knew that. Although many of the creatures made noise and some of them even looked a little like Earthmen, by using his decoder he was able to tell which were Earthmen and which were creatures. After a few stops to use the decoder, he was able to tell the Earthmen from the creatures just by looking at them.

But Urugu was surprised to see the many different kinds of Earthmen, the many different kinds of houses they lived in, the many different kinds of clothes they wore and to hear the many different languages they spoke. Urugu decided that Earth would be an interesting place to live, with so many different kinds of Earthmen to get to know.

Language, that was the key. That was how he could tell an Earthman. Urugu seemed to remember his space code teacher talking about language one day, but on Chawkmeer where everyone spoke the same language and the creatures made no noise at all, Urugu hadn't been very interested. Now he decided that here on Earth where there were so many different languages would be a good place to study language. He had to find something to do, as he was sure his father was still busy on the moon.

Urugu remembered noticing a strange thing when he was talking to the boy in Africa who had told him about his way of life and the life of the people of his village. The boy had talked with great pride as he showed Urugu the many cows in the village herd. Over and over again, the decoder translated the word "cow" but Urugu noticed that the boy was actually using different words. When he explained to the boy that many different words of his were all being decoded as "cow," the boy explained that all of these different words did refer to cows, but to different kinds of cows, different colors of cows, or cows used for different purposes. The boy's language had a different word for a "brown cow" than for a "black cow" and he did not have to use two words to say "black cow" or "brown cow." The boy must have mentioned nearly one hundred different words and yet they all came through the decoder as "cow," sometimes with extra words like "black" or "brown."

As Urugu thought back on this, he began to wonder if the boy's language was better than his. It certainly had more words to use when talking about cows. Maybe Earthmen had better languages than the one used on Chawkmeer. That would be something to investigate. Urugu noticed a landing spot several hundred miles north of the boy's village, an oasis in the middle of the largest sand desert he had ever seen. There were lovely, tall trees and some of the hump-backed animals Urugu had seen when he was still investigating Earth creatures. Urugu found another boy he could talk to and after getting acquainted he asked him about his language. At first it seemed quite ordinary, having only one word for cow, just like Chawkmeerian. As the boy talked more, telling Urugu about his life in the desert, Urugu again noticed many different words were being translated by his decoder into one word. This time the one word was "camel." In the desert it was camels that were important to the people. They had even more words for different kinds of camels than there had been in the African boy's language for cows. And there was something else that they had even more words for. This Arab boy could name over a thousand different kinds of "dates," which were one of Urugu's favorite fruits. But Urugu had not known there were so many kinds. The boy told Urugu that his father and his neighbors who grew dates knew even more words for "dates." Earth languages were certainly strange and Urugu was beginning to think they really were superior to his own language.

From North Africa Urugu went to Asia where he found a village that spoke a language that had hundreds of words for rice. In the Pacific Islands he found a language that had many, many words for sweet potatoes. And in the far North he found an Eskimo boy who could describe many different kinds of snow, with a different word for each kind. He could talk about "wet snow" with one word and "fresh snow" with one word, and many, many other kinds with still another word.

By now Urugu was getting brave and decided to go back to one of the countries where he had seen the large cities and see if he could find a small village close to one of them. He found one in the Pacific Northwest in the United States. There he found lots of words for different kinds of machines and other modern inventions. Urugu could understand this. Chawkmeerian had lots of words for these too. Most of the time his language decoder had a Chawkmeerian word for every different word in this Earth language.

Here on Earth Urugu had learned something about language that he had never realized on Chawkmeer where everyone spoke the same language and lived in much the same way. On Earth with all of its different kinds of people with their different ways of life, the people had different Earth languages which fit their way of life. If cows were important, they had lots of words for cows.

But all of the people that Urugu had talked to could say anything they wanted to say. And Urugu realized that he could also say anything he wanted to say with his Chawkmeerian language. He didn't feel bad anymore that his language didn't have a lot of words for cows, or camels, or sweet potatoes. He realized now that the language decoder had been able to translate all of these words into Chawkmeerian, it was just that it had to use more than one word to do it. Also he realized that the language decoder had been able to translate all of his words into the languages of the Earthmen he had talked to. Sometimes one Chawkmeerian word probably became more than one word in the Earth languages.

Now he knew that Chawkmeerian or any other language had all of the words it needed for people to say whatever they wanted to say. He thought that was probably a very important thing to learn about language. Feeling very proud of himself, he zipped back to the moon just in time. The space guards were finished with the investigation and a stowaway who is late for the return trip just might get left behind.

# WHAT IS A SYSTEM?

PURPOSE: To make students aware of what is meant by a system by finding the characteristics which some well-known systems have in common.

MATERIAL: Student lesson, "What Is a System," page 1, filed separately, to be handed out to each student. (Note: This was formerly Lesson 4 with page 2 deleted.)

Crossword puzzles 1 and 2 to be handed out to each student. These have been reproduced and are included with this shipment.

SUGGESTED PROCEDURE:

1. Pass out page 1 of the student lesson "What Is a System?" Have students read part 1 on this page and use the questions to guide a discussion which aims at deciding what some common characteristics of systems are. There are several different ways you could go about this:

    a. You might simply discuss each of the systems in turn, and by the kind of questions you ask induce some characteristics of systems, listing them on the board as students mention them. The following are characteristics you should try to bring out.

        a. A system has parts that go together to form a whole.

        b. The parts are related.

        c. The parts go together in an orderly way and are therefore predictable.

        d. A system has laws or rules that govern how the parts go together.

    You might also want to mention that some systems are natural and some are man-made.

    b. You could use the following chart on the board and have students help you fill it in as a basis for deciding what characterizes systems.

| | Solar System | R. R. System | Traffic System | School System |
|---|---|---|---|---|
| What is in the system? | | | | |
| Why is it a system? | | | | |

c. You could divide the class into groups and have each group fill out such a chart and then come together to share results.

2. After students have set up a list of characteristics by which to judge a system, have them read part 2 and apply the characteristics to determine if various kinds of games are systems. The following questions might be used to help students arrive at answers to the questions in the student lesson. They should conclude that games are systems because they have parts that belong to the system and go together in an orderly and predictable way according to certain rules.

Can you mix part of one system with another and still have it work smoothly? (No.)

Could you take some of the rules for baseball and use them in a basketball game? (No, not and still have the same game.)

Could you play baseball with a football? (Not very well.)

What does this tell you about the parts that belong to a system? (Each system has its own parts that work together according to the rules of that system.)

3. To reinforce this concept you could use either or both of the following games and puzzles.

a. Use either a real game that students do not know, or an invented one, but don't tell them the rules. For example, you might use a game called Frick-a-Frack. Tell students that they are going to play the game and they can start at once. Give no instructions. Obviously, they won't know what to do. Then ask:

What must a game have in order for people to play it? (A goal or aim and some rules.)

What must people know in order to play it? (People must know the rules.)

b. Put the following puzzle on the board.

SWING - SING + FORT - T + R + DOGS - FROG =
(The answers is WORDS.)

Have students solve the puzzle and then ask:

Is this game a system? Why or why not? (Being a very simple puzzle, it has very little system, but students must know what plus and minus signs stand for in order to work it.)

4. Conclude the lesson with the crossword puzzles. Before beginning make sure that students know that in such a puzzle:

1. Definitions or clues to words are given.

2. Words are to be written either across or down.

3. Words go in numbered squares.

4. One letter is written in each square.

Pass out puzzle 1 (or put it on the overhead), and let students try to work it. Since this is the puzzle in which neither the squares nor the clues are numbered, they will have trouble. Even if they know the system, part of it is missing. Try to get them to tell you what is missing.

Then pass out crossword puzzle 2 and have students do it. It can be done as a class exercise, or individually, or by having students work in pairs. (The answer key follows this page.)

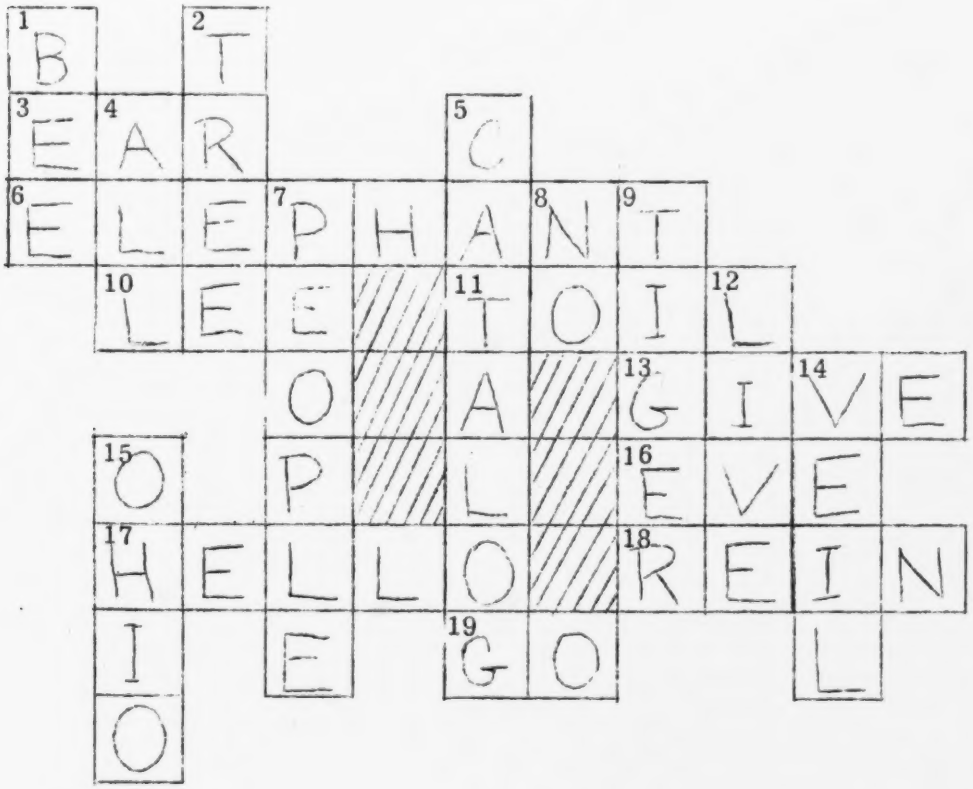
When everyone has completed the puzzle, compare answers and discuss whether the puzzle is a system. (It has parts and rules which determine how the parts go together.) Help students see that by taking away some of the parts they were able to see that all the parts are necessary for the system to work.

POSSIBLE EXTENSION:

1. Have students, working in groups, invent some games which illustrate the characteristics of systems. They must decide what the parts are and what the rules are for putting them together. Have them explain their games (systems) to other members of the class, or have them play the game and see if others can figure out what the parts and rules are.

2. On cards print the various parts that belong to a system. Mix the sets up and pass them out. Have students try to put together the cards that belong to the same system. For example you could use such items as NET, BALL, RACKET, COURT, SERVER, RECEIVER, LOVE, etc., all of which belong to a tennis game.

ANSWER KEY



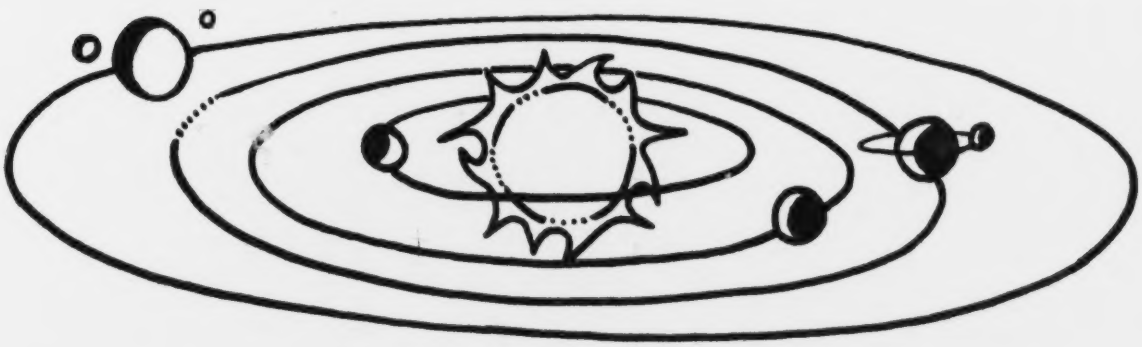

DOWN

1. An insect that gathers honey
2. Plant that is cut up into lumber
4. Everything
5. What companies send to customers so they can order by mail
7. We, the _____ of the United States
8. Opposite of yes
9. Striped cat of the jungle
12. Opposite of die
14. Cloth an Arab woman wears over her face
15. State that is "high in the middle and round on the ends"

ACROSS

3. What you hear with
6. Large animal with a long gray nose
10. Side of ship opposite the windy side
11. To work
13. Opposite of receive
16. Adam's wife
17. What you say when you answer the telephone
18. What you use to guide a horse you are riding
19. Opposite of stop

# WHAT IS A "SYSTEM"?



1. "This year in science, one of the things you may study is the solar system."

   "Railroad tracks, freight cars, engines, engineers, and time schedules are all part of the railroad system."

   "Your body is made up of many systems: the circulatory, the respiratory, the nervous, and the digestive systems, to name just a few."

   "This city has a very modern traffic system."

   "Mr. Stephenson is superintendent of the local school system."

   System is probably not a new word to you, but did you ever stop to wonder exactly what a system is?

   What do all of the systems mentioned above have that makes them systems?

   With your teacher and your classmates make a list of the characteristics that they have that make them systems.

2. When you have decided what it is that makes a system, try to think of some things that aren't called systems, but which may actually be systems. For example, discuss with your class whether or not games are systems. Think of games like baseball, football, or basketball, or some other games you can think of.

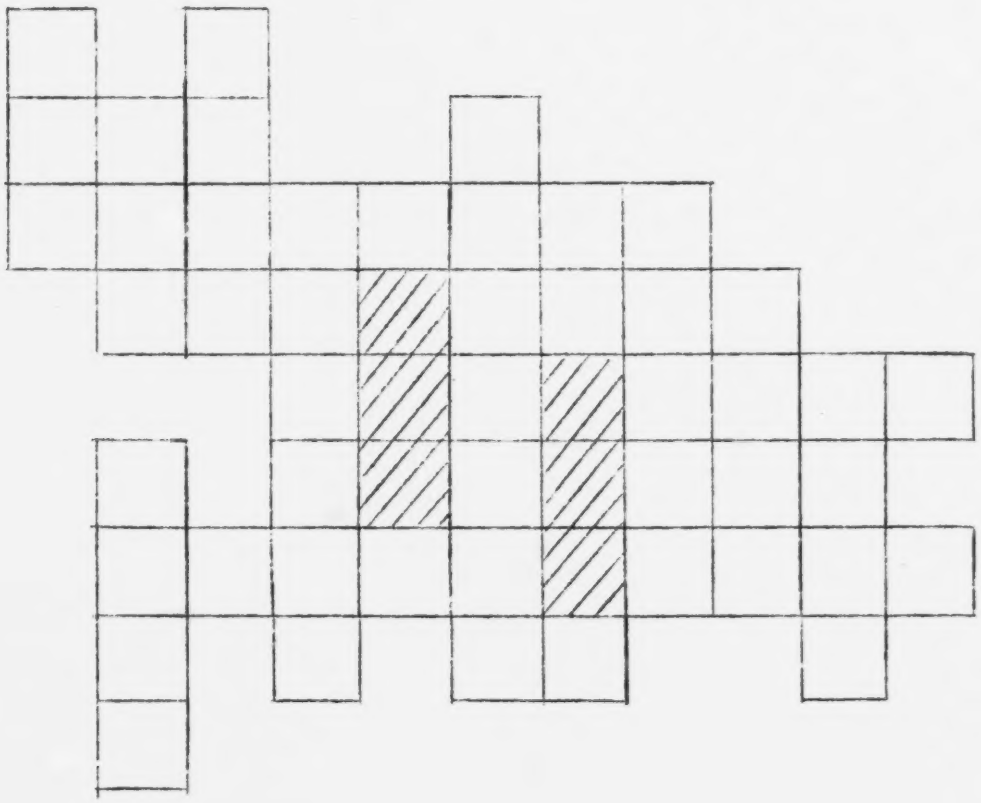
   Are games systems?

   Do they have characteristics of the systems you discussed above? If so, what ones do they have?

What Is Language?
Lesson 3 (formerly lesson 5)
Student

Language V - VI

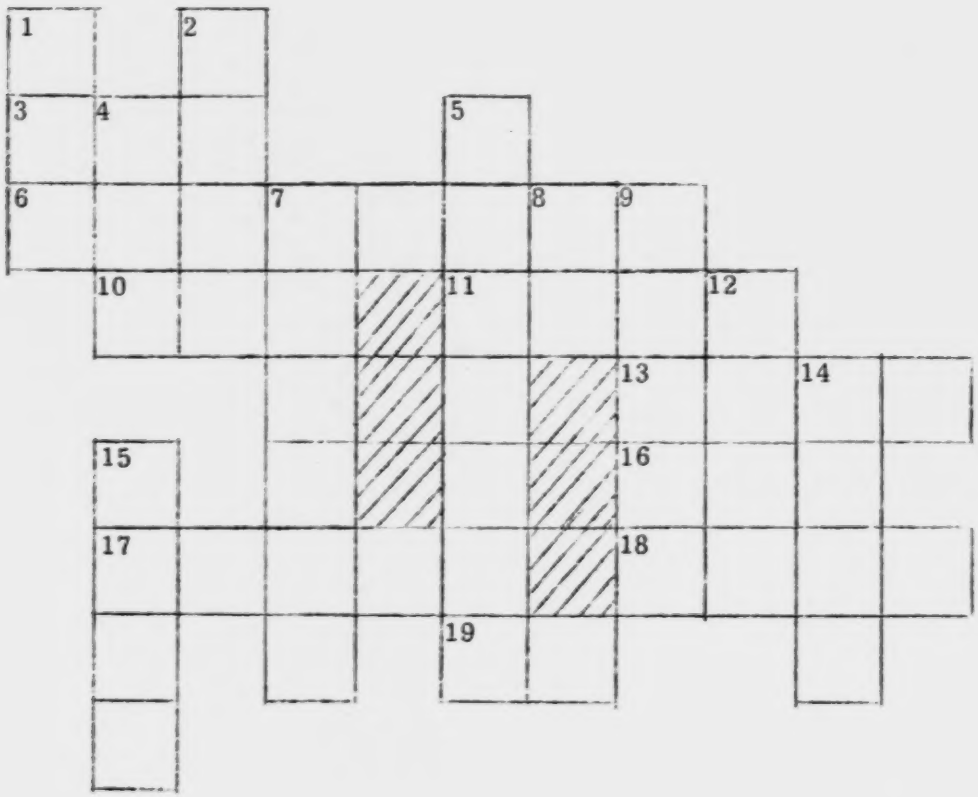
CROSSWORD PUZZLE NO. 1



An insect that gathers honey
Everything
We, the _____ of the United States
Striped cat of the jungle
Cloth an Arab woman wears over her face
Large animal with a long gray nose
To work
Adam's wife
What you use to guide a horse you are riding

Plant that is cut up into lumber
What companies send to customers so they can order things by mail
Opposite of yes
Opposite of die
State that is "high in the middle and round on the ends"
What you hear with
Side of ship opposite the windy side
Opposite of receive
What you say when you answer the telephone
Opposite of stop

# CROSSWORD PUZZLE NO. 2



## DOWN

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5. What companies send to customers so they can order things by mail
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# IS LANGUAGE A SYSTEM?

PURPOSE: To show students 1) that words go together in a system which makes it possible to predict some of the ways they will be used, and 2) that they have learned this system without realizing it and use it without thinking about it.

MATERIAL: Student lesson labeled "Words! Words! Look at All Those Words," pages 1 - 3 (formerly labeled Lesson 6). (Note: page 4 doesn't belong with these pages.)

Student lesson labeled "Is Language a System?" (formerly Lesson 7) and the page labeled "Words and Sentences" (formerly page 4 of Lesson 6).

SUGGESTED PROCEDURE:

1. Pass out student lesson "Words! Words! Look at All Those Words," pp. 1 - 3, and have students read the first two pages either individually or aloud together. Use the questions in the text to guide discussion. Students should understand that to be predictable means that when things happen in a systematic way we can tell what will happen before it happens.

2. Have students fill out page 3 and compare results in class. You could have volunteers predict which words will be used in each sentence and then compare results with the rest of the class. Then discuss the questions

    a. Were you able to predict which words would be used? Why? (The point is that since only a few of the words are possible we can predict which ones will be used, and students already know this because they know the system of English.)

    b. Is our use of words predictable? (Yes.)

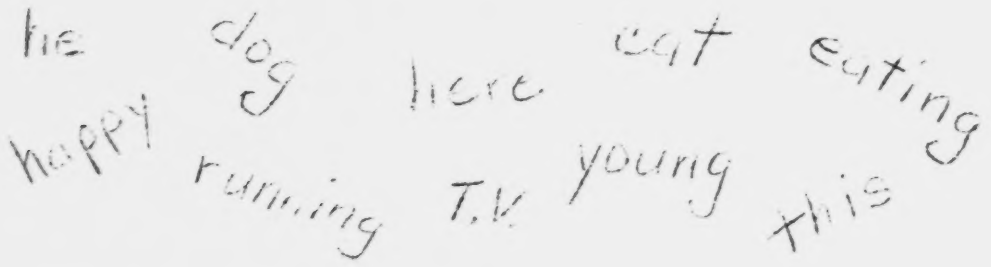
3. Use the student page called "Is Language a System?" (formerly Lesson 7) either as a follow up on the same day or the next day. Read it together and discuss the questions in class. Students should discover that words do go together in a definite order; they know how because they know the system.

    For part 2 use the student worksheet labeled "Words and Sentences," formerly page 4 of Lesson 6. Have students arrange the words into sentences. Some can be arranged into only one sentence, but many fit into two possible sentences, and number 12 into at least three. For example number 8 can be

arranged to produce either "Do you know what I saw?" or "Do I know what you saw?"

After students have completed the sentences, share their answers and discuss the questions in part 3 of "Is Language a System?" Be sure they understand that the parts of language are words which go together in an orderly way. That is, there is a system and therefore we can predict how they will go together. Also emphasize that they all know the same system since they put the sentences together in the same way and they know how to do it without realizing it.

# WORDS! WORDS! LOOK AT ALL THOSE WORDS




In the last lesson you used words to do a crossword puzzle. You discovered that words and some rules for using them are parts of the system of crossword puzzles. Do you suppose that the way we use words in speaking is also a system? And are there rules for putting words together?

One of the characteristics of a system is that it is orderly and predictable. What does it mean to be predictable? Is our use of words predictable?

The weatherman predicts the weather. He is able to say several hours or even several days ahead of time what the weather will probably be like. Many men use many instruments to gather the information which he needs. He studies the information and charts it out on the maps; then he can predict what the weather will be like on a certain day. He is able to do this because he knows which weather conditions cause rainy days and which cause sunny days.

The sun belongs to the solar system. You know that every morning the sun comes into view in your part of the world and every night it goes out of view. You may not always see it because of clouds. But whether you can see it or not, you can predict that it will be there everyday, providing light and heat.

You have talked about railroad systems. Can you predict what will happen in a railroad system? Will the train ever arrive by coming down the street instead of the railroad track? Can you predict what the engineer will do? It is difficult to predict what people will do, but do you think a train engineer would ever stop the train out in the country so that he could get out and pick some daisies at the side of the track?

1. Now try to define what it means to be predictable.

2. Is our use of words predictable? Look again at all those words at the top of the page. Can you predict anything about them? Your teacher wil give you a piece of paper with the words printed on it. Your job is to predict which words your classmates will use in the following sentences.

Your teacher will tell you how to do it.

_____ is small.

The _____ is small.

The boys were _____.

Now decide which of the words you would put in each sentence.

3. After you have predicted which words you think your classmates will use, compare your prediction with the way your classmates actually used the words.

Is our use of words predictable?

he dog here cat eating
happy running T.V. young this

DIRECTIONS: The words in your text are printed at the top of this page. There are ten words. If you were asked to predict which ~~of them~~ would be used in each sentence, what would your prediction be?

_____ is small.

1. _____
2. _____

The _____ is small.

1. _____
2. _____
3. _____

The boys were _____.

1. _____
2. _____
3. _____
4. _____
5. _____

## IS LANGUAGE A SYSTEM?

saw I mice under three the
stool

Is language a system? Do words go together in a systematic way? Is there a system in the way words go together to make sentences?

1. You have discovered that some things about words are predictable. If language is a system, it should have characteristics of a system. You already know some things to look for in a system. You have noticed that a system has different parts and that the parts go together in an orderly way. At the top of the page are some words. Try to put them together to make a sentence.

   Do they have to be in a definite order?

   How did you know how to put them together?

2. Your teacher will give you some groups of words. See if you can put them together in an orderly way to make sentences.

3. Does language have parts? If so, what are some of the parts?

   Do the parts go together in an orderly way?

   Do you think language is a system?

   Complete the following sentence:

   Language is a system because _____

   _____.

## WORDS AND SENTENCES

Below are some groups of words. Rearrange them into sentences which you might say.

1. soft, feels, what
2. was, boy, a, Peter
3. things, like, most, boys, collect, to
4. nothing, was, much, there, do, to
5. was, to, he, of, trying, think, do, to, something
6. became, more, John, more, about, and, rocks, curious
7. an, smell, what, odd
8. you, what, do, I, know, saw
9. smelled, a, I, smell, bad
10. were, there, shoes, old
11. may, groups, you, of, see, things
12. look, may, when, very, you, carefully, you, see, more
13. girl, the, to, went, town
14. is, hard, it, raining
15. sky, the, blue, is

# WHY DO YOU SAY IT THAT WAY?

PURPOSE: To demonstrate to students that the system of any language (including English) seems logical and natural to its speakers because they have all learned the same system.

MATERIAL: Student lesson, "Why Do You Say It That Way?" (formerly Lesson 9), which has 3 pages.

Note: If you prefer, you could delete pages 2 and 3 and reproduce the sentences for an overhead. In that case you should add the words "another language" to the bottom of page 1.

SUGGESTED PROCEDURE:

1. Have students read sections 1, 2, and 3 on page 1, "Why Do You Say It That Way?" and discuss any points of interest. You could have them take turns reading it aloud.

2. Go over each of the foreign sentences as students follow on their own copy (pages 2 and 3) or on the overhead.

   Note: The German and Spanish sentences are written as they would be written in Germany and Spain. The accent marks (´) indicate the syllable with maximum stress. The regular stresses on words are not marked. The tilde over the n (ñ) indicates a sound like the ni in onion, or the ny in canyon. The dieresis (ä) over the vowels in German words indicates that the vowel has a different quality than one without the dieresis. For example, German a is like the a in father and German ä is like the ai in fair.

   The Japanese sentences are written in the Roman alphabet rather than the Japanese, which is a combination of Chinese characters standing for whole words or ideas, and phonetic symbols which stand for syllables rather than for single letters. For example, "wa" is written with one of the symbols, whereas it takes two Roman alphabet letters to represent it. However, it is possible to write Japanese with the Roman alphabet to enable speakers of English to closely approximate the Japanese pronunciation.

3. Have students look at the examples at the top of page 2 so that they understand the difference between the literal transliteration and the way they would say each sentence.

   Note: The words in parentheses in the literal transliterations indicate meanings or functions which we do not express in words in English. Japanese has little words which follow the words

they govern and indicate what grammatical function the words have in the sentences. For instance wa in Japanese means the previous word is a subject. In English we indicate the same relationships with word order or sometimes with prepositions. A hyphen between two English words means that in the foreign language it was one word. You may choose to eliminate the hyphens and parenthetical words from your discussion with your students, depending upon their ability to understand such differences. And you may not wish to use all of the sentences.

4. Have students individually or in groups work out how they would say each sentence in English. The meaning of most sentences will be obvious to you, but there are a few where it is different than you might expect as speakers of English. The correct translation follows:

    3. How old are you?
    4. What time is it?
    5. What time is it?
    6. What time is it?
    7. What time is it?
    8. Won't you please tell me what time it is?
    9. I went to town.
    10. I went to town.
    11. I went to town.
    12. Do you speak English?
    13. Do you speak English?
    14. Do you speak English?
    15. I don't know that word.
    16. I don't know that word.
    17. I want to go shopping.

4. Follow up with a time to share answers and discuss the questions that follow on page 3. The important point to bring out in discussing these questions is that all speakers of the same language have learned the same words and the same rules for putting the words together. That is, they know the same system. Therefore sentences put together in our system sound natural to us and those put together in the Japanese system sound natural to Japanese.

WHY DO YOU SAY IT THAT WAY?

"What time is it?" "How old are you?"

1. Have you ever stopped to wonder why these questions are asked in this way? Can you think of other ways to ask the same things?

Language is something you have learned so well that you use it automatically and you don't stop very often to ask yourself why you use it the way you do.

2. You probably wouldn't ever hear anyone say

"How many years have you?"

or

"What hour have you?"

Can you understand these sentences? If you can, why do you think no one ever asks the questions this way?

3. When you hear sentences like "How many years have you?" or "What hour have you?" you understand them, but they sound a little strange to you. These kinds of sentences are most often heard from someone who is learning the language, usually someone who speaks another language. They haven't quite mastered the system of English, so they say things which don't seem quite natural or logical to us.

One of the first things we all learn about a foreign language is that it has different words for things. What we call a dog in English is Hund in German, perro in Spanish, and inu in Japanese.

Another difference in languages is that each one has its own system for putting words together and expressing ideas. In English, we say "I went to town." If someone says "To town went I," we can understand him, but we wonder why he is talking in such a strange way, using phrases that we might expect to find in a poem. If we compare statements from various languages we find that what seems strange to us may be ordinary conversation in

another language. Here are some short sentences from German, Japanese, and Spanish for you to look at. How would you say it?

Examples:

a. The way the Spanish say it: Quantos años tiene usted?
How many years have you?

How would you say it? (How old are you?)

b. The way the Japanese say it: Anata wa ikutsu desu ka?
You (subject) how-many are (question)

How would you say it? (How old are you?)

1. Wie alt sind Sie? (German)
How old are you?

2. Qué hora tiene usted? (Spanish)
What hour have you?

3. Wie spät ist es? (German)
How late is it?

4. Wieviel Uhr ist es? (German)
How-much hour is it?

5. Qué hora es? (Spansih)
What hour is-it?

6. Nan ji ka oshiete kudasaimasen ka? (Japanese)
What hour (question) tell please-not (question)

7. Watakushi wa machi o itta. (Japanese)
I (subject) town to went.

8. Ich bin zur Stadt gegangen. (German)
I am to-the town gone.

9. Fuí a la cuidad. (Spanish)
I-went to the town.

10. Sprechen Sie Englisch? (German)
Speak you English?

11. Habla usted Inglés? (Spanish)
Speak you English?

12. Anata wa eigo o hanashimasu ka? (Japanese)
You (subject) English (object) speak (question)

13. Ich kenne das Wort nicht. (German)
I know that word not.

14. Watakushi wa sono kotoba o wakarimasen. (Japanese)
I (subject) that word (object) know-not.

15. Watakushi wa kaimono ni ikitai desu. (Japanese)
I (subject) shopping for go-want is.

4. Do the sentences seem strange to you?

Did you wonder why they are put together in such a strange way?

Do you think they sound strange to the native speakers of these languages?

Or do you think our way of saying the same sentences would seem strange to them?

Why does our way seem natural to us?

What do all speakers of a language have in common, so that their speech does not seem strange to each other?

What do all speakers of a foreign language have in common, so that their speech seems strange to us?

Our language seems natural and logical to us, because it is the only language system we know and hear around us all the time. It is the system that we have learned and that we use when we speak. It seems natural to us because we are used to it.

# IS LEARNING FORGETTING?

PURPOSE: To show students they learned their language when they were very young and have learned it so well they use it automatically without thinking consciously about what they are doing.

MATERIAL: Student lesson, "Is Learning Forgetting?" formerly Lesson 8.

SUGGESTED PROCEDURE:

1. Pass out student lesson and read part 1, "Is Learning Forgetting?" using the questions in the text as a basis for discussion. The lesson will be more meaningful to students if you bring into the discussion things which students have learned recently or are in the process of learning now. In addition to what is mentioned in the lesson, students will probably be able to think of many things which they have learned.

   For subjects like swimming, you will probably have all ranges of ability among your students. Let them compare these abilities. The skilled swimmer will be doing automatically what the beginner is still concentrating on. In reading, each student should be able to think of words which he reads automatically, and also of new or difficult words which he has to figure out with the word attack skills he has learned.

2. Before proceeding to part 2 of the discussion, a simple class demonstration could be made with a typewriter. Most, if not all, of your students will be unable to type except by the hunt and peck method. Have one of them demonstrate for the class how he must consciously look for and strike each letter separately. Then have a demonstration by an experienced typist (either yourself or your building secretary), and demonstrate how someone who has learned does it automatically, not taking time to think of each letter separately.

3. In the final discussion of language, emphasize to the students that not only is language a system, but it is one which they have mastered and in which they are experts. Future lessons will demonstrate to them parts of the system and just how well they do know them.

POSSIBLE EXTENSIONS:

1. Have students interview their parents about how they learned to talk, and make a report to the class or write a composition about it.

2. Have students observe a younger child learning to talk over a period of time and make a report on how he progresses.

# IS LEARNING FORGETTING?

1. Do you remember when you learned to ride a bicycle? You had to think about keeping your balance, keeping the handle bars straight, pushing the pedals to keep moving, and you had to do all of these things at the same time. You also had to learn how to get on and off without falling.

Now when you ride your bicycle, do you ever think about how you do it? Do you think about how to get on and off? Do you have to think about keeping the handle bars straight? Or do you just do all of these things automatically, without thinking about them?

Part of learning to do things is getting so good at them that you do them automatically. What are some of the things that you do automatically now, but that you had to think about when you were learning to do them? What about learning to read, learning to write, or learning to swim?

2. Many of the things which you do automatically were learned when you were too young to remember anything at all about learning them.

Perhaps you have watched a little brother or sister, or some other young child. Have you ever seen them take a cup and tip it over and then look surprised when what is in it spills all over? You probably thought it was funny, but did you ever stop to think why it happened? The child hadn't learned yet how to hold a cup without tipping it. Even when he learns that what is in the cup does spill, he often spills when he tips the cup to take a drink. He hasn't learned yet just exactly how to tip it and get it to his mouth without spilling. You have learned to do this without having to think about it, but occasionally even you may still make a mistake and spill a little!

When you were very young, too young to remember it now, you learned not only how to drink, but how to eat, how to walk and many more things. What are some of the things you had to think about then that you do automatically now?

Talking is another thing that you learned to do when you were very young. This is why you can talk without stopping to think about it. You use language automatically, and so it is not surprising that you don't think about how you do it.